PRELIMINARY LISTS OF NEW ENGLAND PLANTS,— XVII.[1]

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[The sign + indicates that an herbarium specimen has been seen; the sign — that a reliable printed record has been found.]

Scrophulariaceae.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
Bartsia Odontites, Huds.	+					
Castilleia coccinea, Spreng.				+	+	+
" pallida, Kunth, var. septentrionalis, Gray	+	+	+			
Chelone glabra, L.	+	+	+	+	+	+
Euphrasia americana, Wetts.	+	+				
" " " var. canadensis, Rob.	+	+				
" latifolia, Pursh.	+					
" Oakesii, Wetts.	+	+				
" Randii, Robinson	+					
" " " var. Farlowii, Rob.	+					
" Williamsii, Robinson		+				
Gerardia flava, L.		+	+	+	+	+
" maritima, Raf.	+	+		+	+	+
" pedicularia, L.	+	+	+	+	+	+
" purpurea, L.				+	+	+
" " var. paupercula, Gray	+	+	+	+	+	+
" quercifolia, Pursh.	+	+	+	+	+	+
" Skinneriana, Wood				+		+
" tenuifolia, Vahl.	+	+	+	+	+	+
Gratiola aurea, Muhl.	+	+	+	+	+	+
" virginiana, L.	+	+	+	+	—	+
Ilysanthes riparia, Raf.	+	+	+	+	+	+
Limosella aquatica, L., var. tenuifolia, Hoff.	—			+	+	+
Linaria canadensis, Dumont	+	+	+	+	+	+
" Cymbalaria, Mill.				+		+
" Elatine, Mill.				+	+	+
" vulgaris, Mill.	+	+	+	+	+	+
Melampyrum americanum, Michx.	+	+	+	+	+	+
Mimulus alatus, Ait.					—	+
" Langsdorfii, Sims. (M. luteus, au. not L.)						+
" moschatus, Douglas			+	—		
" ringens, L.	+	+	+	+	+	+

[1] Printed in Rhodora as supplementary material.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
Pedicularis canadensis, L.	+	+	+	+	+	+
" Furbishiae, Watson	+					
" lanceolata, Michx.				+	+	+
Pentstemon grandiflorus, Nutt.				+		—
" laevigatus, Solander			+	+		+
" " var. Digitalis, Gray	+			+	+	+
" pubescens, Solander	+	+	+	+	—	+
" Smallii, Heller						+
" tubiflorus, Nutt.						+
Rhinanthus Crista-galli, L.	+	+		+	—	+
" major, Ehrh.				+		
Schwalbea americana, L.				+		+
Scrophularia leporella, Bicknell	+	+	+	+	+	+
" marilandica, L.			+	+	+	+
Verbascum Blattaria, L.	+	+	+	+	+	+
" Lychnitis, L.				+	+	
" phlomoides, L.				+		
" Thapsus, L.	+	+	+	+	+	+
Veronica alpina, L.	+	+				
" americana, Schweinitz	+	+	+	+	—	+
" Anagallis, L.			+	+		
" arvensis, L.	+	+	+	+	+	+
" Buxbaumii, Tenore	+		+	+		+
" Chamaedrys, L.	—		+	+	+	+
" longifolia, L.	+	+	+	+		+
" peregrina, L.	+	+	+	+	+	+
" officinalis, L.	+	+	+	+	+	+
" scutellata, L.	+	+	+	+	+	+
" serpyllifolia, L.	+	+	+	+	+	+
" " var. borealis, Laestad.	+	+	+			
" Teucrium, L.		+		+		+
" virginica, L.	—			+		+

VERBENACEAE.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
Phryma leptostachya, L.		+	+	+	+	+
Verbena angustifolia, Michx.			—	+		+
" bracteosa, Michx.	+			+		+
" hastata, L.	+	+	+	+	+	+
" stricta, Vent.				+		+
" urticaefolia, L.	+	+	+	+	+	+

Notes on the above List.

Antirrhinum majus, L., common in gardens, is mentioned in some local catalogues (Berzelius Catalogue of Connecticut Plants; Robinson, Flora of Essex County, Massachusetts) as an escape, but doubtfully established. I have not found it in any of the herbaria of New England.

The reports of *Castilleia coccinea*, Spreng., and of typical *Gerardia purpurea*, L., in the Portland Catalogue of Maine Plants, and in Harris's Flora of Windham, New Hampshire, appear to be without foundation.

For a revision of our Euphrasias, with an account of their stations and ranges, reference may be had to Rhodora, iii, 270.

Gerardia Skinneriana, Wood, which is frequent on the southern coast of Massachusetts and Connecticut, is very likely to be found along the intervening shore of Rhode Island.

In determining, with reference to the New England states, the occurrence and range of *Ilysanthes*, I was at first disposed to accept the conclusions of Dr. John K. Small (Torr. Bull., XXIII, p. 296: Aug., 1896) so far as they apply to our New England plant, and to accord specific rank to his *I. attenuata* (*Lindernia attenuata*, Muhl.).

Besides less conspicuous characters wherein this form is claimed to differ from *I. riparia*, Raf. (*I. gratioloides*, Benth.) there is the shortness of the pedicels relative to the length of the leaves. This extreme disparity in the length of the pedicels compared with the leaves, which was frequently concomitant with a habit "stouter and lax," or more procumbent in the one than in the other form, enabled me without much difficulty to deal with a limited number of New England specimens, which ranged themselves fairly well respectively under the desired names.

It, however, early became apparent that the length of the sepals relative to that of the capsule, a distinction upon which stress is laid, was of little or no value as a diagnostic character; and as specimens from New England were encountered which combined, in one collection or in a single plant, pedicels both longer and shorter than leaves, doubts arose, and recourse was had to a careful examination of the abundant material in the Gray Herbarium from all parts of the country, from Canada and from Mexico, of the sheets in the herbarium of the New England Botanical Club and in my own and other herbaria.

This broader view and research only tended to confirm finally the impression that all the supposed distinctive characters of *I. attenuata* are variable, and that there are no differences between the two forms which are specific, constant, or concomitant one with another, or which have even varietal value. Acknowledgment should be made to Dr. Robinson and to Mr. Fernald for advice and co-operation in the investigation.

I may add that I found no specimens with long pedicels from Maine, New Hampshire or Vermont.

Limosella aquatica, var. *tenuifolia*, Hoff., will probably be found on the coast of Maine, but at present the report in the Portland Catalogue lacks confirmation.

While *Pedicularis lanceolata* is credited to Massachusetts, it should be said that it here reaches its northern limit, and is rare and local. I have been able to discover but two collections of it; one, probably a waif, in the herbarium of the New England Botanical Club, labeled, without date, "Middlesex Flora. Loc. Revere, just over the line. Mass. Moody." The other sheet, which was kindly sent to me for examination by Prof. Geo. E. Stone, of Amherst, Mass., was from the herbarium of Atherton Clark, and collected at Prescott, Mass., by the late Prof. H. G. Jesup, in Sept., 1874.

Many waifs belonging to the two families here treated have been reported as more or less established in various parts of New England. Of these the following having been seen in herbaria are included, although with some hesitation, in the columns of the Check-list:—*Linaria Cymbalaria*, Mill., *L. Elatine*, Mill., *Pentstemon grandiflorus*, Nutt., *P. Smallii*, Heller, *P. tubiflorus*, Nutt., *Verbascum Lychnitis*, L., *V. phlomoides*, L., *Veronica Chamaedrys*, L., *V. Teucrium* L., and *Verbena bracteosa*, *Michx.*

The only *Pentstemon* native to New England is *P. pubescens*, Soland., but *P. lævigatus*, Soland. and its variety *digitalis*, Gray, frequently appear in cultivated grounds. *P. grandiflorus*, Nutt. was collected by Dr. Walter H. Chapin in 1898 "in waste land on the edge of the City" of Springfield, Massachusetts, where there were about 100 plants in a small space. Dr. Chapin writes that the species still (1904) "persists and if not exterminated by cultivation will be permanent. The plant, however, has not materially extended its limits." This species has also been reported from Granby, Connecticut, but the report may be based on *P. Smallii*, Heller, collected

there by I. Holcomb in June, 1904, the specimens being now in Mr. Bissell's herbarium.

Mr. Bissell also sent me for examination a specimen of *P. tubiflorus* Nutt., collected by him "in grass land, Salisbury, Conn., July 29, 1904." Both these species have been determined by Mr. Fernald, and occurring thus, far out of their normal range in the South and West, illustrate the migratory habits of the genus.

Rhinanthus. Two of the common European "Yellow-Rattles" are *Rhinanthus Crista-Galli*, L., the species which is common on our Maine coast and local elsewhere in New England; and a larger plant, *R. major*, Ehrh., which has the exserted corolla 1½ to 2½ cm. in length and the bracts yellow at their base instead of green. The nipple-like appendages on the upper lip of the corolla of the larger plant are colored bright purple and are longer than broad, while these appendages in our smaller plant are broader than long and of yellow color uniform with the rest of the corolla, which rarely exceeds 1½ cm. in length.

In the Synoptical Flora (1878) Dr. Gray says our common Yellow-Rattle "varies much in size, but apparently we have no *R. major*, Ehrh.", and the plant is not mentioned in any of our more recent Manuals.

It was interesting therefore to discover in the Gray Herbarium a sheet of veritable specimens of *Rhinanthus major*, marked "Rhinanthus Crista-Galli, var. major. In pratis humidis ad *Plymouth*, *Massachusetts*, Legit Oakes." The label gives no date, but the words quoted do not suggest that the plant was at all transient or scarce, nor is the plant one in its nature likely to disappear in succeeding seasons.

The question then arises where was this station, and do these plants still persist there? A like query which the writer put, in RHODORA, II, 92; April, 1900, as to a long-lost station for *Phaseolus perennis*, was soon answered by our diligent botanists in Connecticut. Let us of Boston go and do likewise, and rediscover the Greater Yellow-Rattle in the dewey meads of Plymouth!

Verbascum phlomoides, L., seems to persist at its only New Eng, land station, Annisquam, Massachusetts, where it was first collected by Professor J. H. Robinson in 1894.

Although but recently observed, *Mimulus moschatus*, Dougl., seems to be a permanent part of the Vermont flora. The writer has found it growing abundantly along a wet roadside in Canada near the Vermont line. It has also been recently reported in Massachusetts.

Specimens of so-called *Veronica agrestis*, L., in the Herbarium of the New England Botanical Club, from Reading, Massachusetts, have been found to be *V. Buxbaumii*, Ten., and reports of *V. agrestis* from New England appear to be without foundation.

Of *Veronica Anagallis*, L., the writer has seen a specimen from Tinmouth, Vermont, where it was discovered by Mr. W. W. Eggleston. There is also a specimen in the Gray Herbarium collected many years ago by Oakes at Ipswich, Massachusetts. This station is now extinct or at least unknown, but the plant is reported from Berkshire County by Mr. Ralph Hoffmann. The species has been recorded from other New England States in various local catalogues, but the writer after much inquiry has been unable to verify these reports and is inclined to suspect that the habitally similar *V. americana* is frequently mistaken for *V. Anagallis*. The latter species must be very rare in New England.

I have been unable to verify the occurrence in New England of the following species reported in divers local catalogues of reliable character, and it has seemed best to omit them from this list, for even if they have been correctly identified they must in most, if not all instances, form only casual and transient features in the New England flora.

Micranthemum Nuttallii, Gray. Bishop's Catalogue, 1901. Connecticut.

Mimulus brevipes, Benth. Middlesex Flora, 1888. Massachusetts.

" *Jamesii*, Torr. & Gray. Bishop's Catalogue, 1901. Connecticut.

Orthocarpus purpurascens, Benth. Middlesex Flora, 1888. Massachusetts.

Verbascum nigrum, L. Essex Flora, 1880. Massachusetts.

Veronica hederæfolia, L. Bennett's List, 1888. Rhode Island.

" *spicata*, L. Middlesex Flora, 1888. Massachusetts.

Verbena officinalis L. " " " "

" " " Bishop's Catalogue, 1901. Connecticut.

BOSTON.

WHITE FORM OF SABBATIA CHLOROIDES.— A white form of *Sabbatia chloroides*, Pursh, grows on the borders of a pond in East Weymouth, which seems remarkable in that there are hundreds of the plants none of which show the slightest tinge of pink in the flowers. No typical pink flowers can be found nearer than at a pond in South